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Erratum: SPITZER-IRS spectral fitting of discs around binary post-AGB stars.

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ABSTRACT

Aims. no abstract
Methods. no abstract
Results. no abstract

Key words. stars: AGB, post-AGB - stars: binaries - stars: circumstellar matter - stars: abundances - Magellanic Clouds

Recently, we have discovered an error in our Monte-Carlo spectral fitting routine, more specifically where the errors on the fluxes were rescaled to get a reduced χ^2 of 1. The rescaled errors were too big, resulting in too wide a range of 'good' fits in our 100 step Monte-Carlo routine.

This problem affects Figs. 7-9 and Table A.1-A.2 in Gielen et al. (2008), Table 3 in Gielen et al. (2009a), and Table 4 in Gielen et al. (2009b).

We corrected for this error and present the new values and errors in the tables below. The new values and errors nearly all fall within the old error range. Our best χ^2 values and overall former scientific results are not affected. With these new errors some possible new trends in the dust parameters might be observed. These will be discussed in an upcoming paper where we extend the sample presented in Gielen et al. (2008) with newly obtained SPITZER-IRS data.

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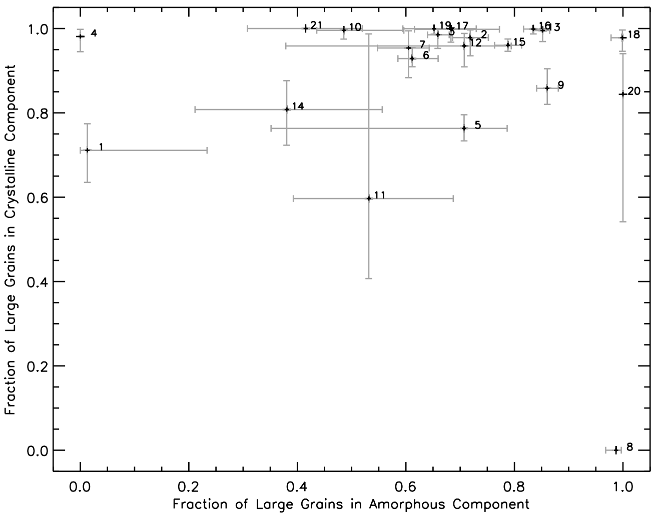

Fig. 1. *Erratum for Fig. 7 in Gielen et al. (2008):* The fraction of large grains in the amorphous component versus the fraction of large grains in the crystalline component, using the fitting with grain sizes of 0.1 μm and 2.0 μm. Crystalline grains are almost completely made up of large 2.0 μm grains.

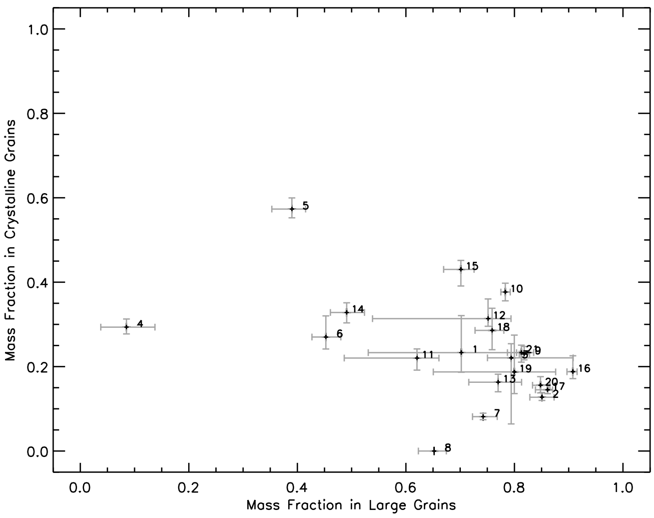

Fig. 2. *Erratum for Fig. 8 in Gielen et al. (2008):* The mass fraction in large grains (4.0 μm) plotted against the mass fraction in crystalline grains, as derived from our best-fit parameters.

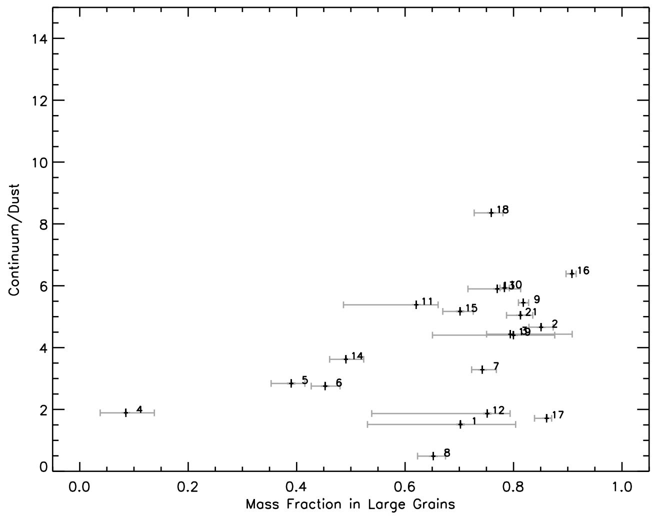

Fig. 3. *Erratum for Fig. 9 in Gielen et al. (2008):* The continuum-to-dust ratio of the observed spectra plotted against the mass fraction on large grains (4.0 μm).

Table 1. *Erratum for Table A.1 in Gielen et al. (2008)*: Best-fit parameters deduced from our full spectral fitting. Listed are the χ^2, dust and continuum temperatures and their relative fractions.

N°	Name	χ^2	T_{dust1} (K)	T_{dust2} (K)	Fraction T_{dust1} - T_{dust2}	T_{cont1} (K)	T_{cont2} (K)	Fraction T_{cont1}-T_{cont2}
1	EP Lyr	56.7	100^{50}_{50}	200^{50}_{50}	$0.90^{0.05}_{0.10} - 0.10^{0.10}_{0.05}$	200^{50}_{50}	994^{50}_{103}	$0.98^{0.01}_{0.01} - 0.02^{0.01}_{0.01}$
2	HD 131356	3.5	200^{50}_{50}	1000^{50}_{50}	$0.90^{0.05}_{0.05} - 0.10^{0.05}_{0.05}$	200^{50}_{50}	500^{50}_{50}	$0.90^{0.01}_{0.01} - 0.10^{0.01}_{0.01}$
3	HD 213985	4.4	184^{50}_{87}	1000^{50}_{50}	$0.90^{0.05}_{0.05} - 0.10^{0.05}_{0.05}$	200^{50}_{50}	884^{50}_{87}	$0.98^{0.01}_{0.01} - 0.02^{0.01}_{0.01}$
4	HD 52961	72.2	200^{50}_{50}	800^{50}_{50}	$0.90^{0.05}_{0.05} - 0.10^{0.05}_{0.05}$	100^{50}_{50}	1000^{50}_{50}	$0.99^{0.01}_{0.01} - 0.01^{0.01}_{0.01}$
5	IRAS 05208	4.5	292^{50}_{95}	923^{78}_{113}	$0.80^{0.05}_{0.10} - 0.20^{0.10}_{0.05}$	200^{50}_{50}	400^{50}_{50}	$0.85^{0.01}_{0.01} - 0.15^{0.01}_{0.01}$
6	IRAS 09060	3.6	200^{50}_{50}	728^{73}_{130}	$0.90^{0.05}_{0.05} - 0.10^{0.05}_{0.05}$	228^{73}_{130}	834^{141}_{237}	$0.93^{0.02}_{0.02} - 0.07^{0.02}_{0.02}$
7	IRAS 09144	6.1	200^{50}_{50}	504^{111}_{50}	$0.90^{0.05}_{0.05} - 0.10^{0.05}_{0.05}$	200^{50}_{50}	796^{50}_{111}	$0.94^{0.01}_{0.01} - 0.06^{0.01}_{0.01}$
8	IRAS 10174	13.9	300^{50}_{50}	400^{50}_{50}	$0.90^{0.05}_{0.05} - 0.10^{0.05}_{0.05}$	100^{50}_{50}	300^{50}_{50}	$0.97^{0.01}_{0.01} - 0.03^{0.01}_{0.01}$
9	IRAS 16230	4.9	200^{50}_{50}	500^{50}_{50}	$0.90^{0.05}_{0.05} - 0.10^{0.05}_{0.05}$	100^{50}_{50}	500^{50}_{50}	$0.95^{0.05}_{0.05} - 0.05^{0.05}_{0.05}$
10	IRAS 17038	2.9	317^{85}_{50}	871^{61}_{80}	$0.80^{0.10}_{0.10} - 0.20^{0.10}_{0.10}$	200^{50}_{50}	591^{50}_{96}	$0.97^{0.01}_{0.02} - 0.03^{0.02}_{0.01}$
11	IRAS 17243	2.3	200^{50}_{50}	486^{50}_{89}	$0.90^{0.05}_{0.10} - 0.10^{0.10}_{0.05}$	200^{50}_{50}	600^{50}_{50}	$0.90^{0.01}_{0.01} - 0.10^{0.01}_{0.01}$
12	IRAS 19125	3.9	100^{50}_{50}	200^{50}_{50}	$0.90^{0.05}_{0.05} - 0.10^{0.05}_{0.05}$	482^{50}_{309}	788^{50}_{206}	$0.86^{0.01}_{0.05} - 0.14^{0.05}_{0.01}$
13	IRAS 19157	5.5	200^{50}_{50}	695^{50}_{106}	$0.90^{0.05}_{0.05} - 0.10^{0.05}_{0.05}$	200^{50}_{50}	705^{106}_{50}	$0.96^{0.01}_{0.01} - 0.04^{0.01}_{0.01}$
14	IRAS 20056	3.8	100^{50}_{50}	200^{50}_{50}	$0.10^{0.20}_{0.10} - 0.90^{0.10}_{0.20}$	200^{50}_{50}	600^{50}_{50}	$0.88^{0.01}_{0.01} - 0.12^{0.01}_{0.01}$
15	RU Cen	3.4	287^{50}_{91}	575^{50}_{176}	$0.90^{0.05}_{0.30} - 0.10^{0.30}_{0.05}$	200^{50}_{50}	599^{50}_{50}	$0.99^{0.01}_{0.01} - 0.01^{0.01}_{0.01}$
16	SAO 173329	3.1	200^{50}_{50}	702^{139}_{50}	$0.90^{0.05}_{0.05} - 0.10^{0.05}_{0.05}$	200^{50}_{50}	600^{50}_{50}	$0.93^{0.01}_{0.01} - 0.07^{0.01}_{0.01}$
17	ST Pup	8.4	200^{50}_{50}	500^{50}_{50}	$0.90^{0.05}_{0.05} - 0.10^{0.05}_{0.05}$	200^{50}_{50}	500^{50}_{50}	$0.95^{0.01}_{0.01} - 0.05^{0.01}_{0.01}$
18	SU Gem	1.8	154^{105}_{54}	558^{96}_{59}	$0.80^{0.10}_{0.10} - 0.20^{0.10}_{0.10}$	200^{50}_{50}	800^{50}_{50}	$0.95^{0.01}_{0.01} - 0.05^{0.01}_{0.01}$
19	SX Cen	4.3	257^{50}_{58}	968^{50}_{69}	$0.80^{0.10}_{0.10} - 0.20^{0.10}_{0.10}$	200^{50}_{50}	691^{50}_{96}	$0.94^{0.01}_{0.01} - 0.06^{0.01}_{0.01}$
20	TW Cam	2.3	261^{50}_{62}	400^{50}_{50}	$0.60^{0.10}_{0.05} - 0.40^{0.05}_{0.10}$	100^{50}_{50}	500^{50}_{50}	$0.95^{0.01}_{0.01} - 0.05^{0.01}_{0.01}$
21	UY CMa	2.9	200^{50}_{50}	726^{76}_{50}	$0.90^{0.05}_{0.05} - 0.10^{0.05}_{0.05}$	200^{50}_{50}	500^{50}_{50}	$0.83^{0.01}_{0.01} - 0.17^{0.01}_{0.01}$

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Table 2. *Erratum for Table A.2 in Gielen et al. (2008)*: Best-fit parameters deduced from our full spectral fitting. The abundances of small (2.0 μm) and large (4.0 μm) grains of the various dust species are given as fractions of the total mass, excluding the dust responsible for the continuum emission. The last column gives the continuum flux contribution, listed as a percentage of the total integrated flux over the full wavelength range.

N°	Name	Olivine Small - Large	Pyroxene Small - Large	Forsterite Small - Large	Enstatite Small - Large	Continuum
1	EP Lyr	$0.00^{0.00}_{0.00} - 0.00^{0.00}_{0.00}$	$15.36^{12.96}_{9.25} - 61.34^{10.71}_{23.01}$	$14.43^{4.61}_{2.17} - 0.02^{0.00}_{0.02}$	$0.00^{0.00}_{0.00} - 8.85^{4.49}_{3.90}$	$53.51^{3.36}_{1.43}$
2	HD 131356	$0.00^{0.00}_{0.00} - 30.48^{1.50}_{1.44}$	$2.87^{1.79}_{1.77} - 53.91^{2.57}_{2.72}$	$12.06^{0.65}_{0.62} - 0.03^{1.00}_{0.03}$	$0.00^{0.00}_{0.00} - 0.65^{1.34}_{0.56}$	$76.34^{0.30}_{0.24}$
3	HD 213985	$0.00^{0.00}_{0.00} - 36.08^{2.20}_{2.21}$	$12.58^{3.42}_{9.92} - 29.27^{25.84}_{6.99}$	$8.02^{1.79}_{1.63} - 7.74^{3.26}_{4.86}$	$0.00^{0.00}_{0.00} - 6.31^{2.09}_{4.45}$	$76.21^{0.57}_{1.51}$
4	HD 52961	$0.00^{0.00}_{0.00} - 0.00^{0.00}_{0.00}$	$70.65^{1.61}_{1.93} - 0.00^{0.00}_{0.00}$	$20.84^{3.81}_{3.57} - 8.40^{5.18}_{4.94}$	$0.00^{0.00}_{0.00} - 0.12^{2.07}_{0.12}$	$65.66^{0.57}_{0.62}$
5	IRAS 05208	$0.00^{0.00}_{0.00} - 9.52^{2.49}_{2.52}$	$33.16^{1.52}_{1.29} - 0.00^{0.00}_{0.00}$	$25.76^{1.34}_{1.10} - 0.00^{0.00}_{0.00}$	$2.10^{2.13}_{1.67} - 29.47^{2.80}_{3.27}$	$69.06^{0.38}_{0.38}$
6	IRAS 09060	$0.06^{1.80}_{0.06} - 32.70^{4.64}_{4.58}$	$39.74^{3.00}_{2.66} - 0.48^{4.21}_{0.49}$	$14.95^{1.37}_{1.81} - 1.11^{2.97}_{1.11}$	$0.01^{0.40}_{0.01} - 10.95^{3.37}_{2.51}$	$72.43^{1.24}_{2.20}$
7	IRAS 09144	$0.00^{0.00}_{0.00} - 39.21^{2.04}_{4.59}$	$17.77^{1.54}_{2.65} - 34.88^{7.04}_{3.03}$	$7.99^{0.75}_{0.63} - 0.00^{0.00}_{0.00}$	$0.00^{0.00}_{0.00} - 0.14^{1.21}_{0.14}$	$72.51^{0.39}_{0.30}$
8	IRAS 10174	$8.70^{4.93}_{3.38} - 39.99^{4.24}_{6.00}$	$26.10^{2.29}_{3.10} - 25.21^{4.19}_{3.46}$	$0.00^{0.00}_{0.00} - 0.00^{0.00}_{0.00}$	$0.00^{0.00}_{0.00} - 0.00^{0.00}_{0.00}$	$31.48^{0.54}_{0.49}$
9	IRAS 16230	$0.00^{0.00}_{0.00} - 47.54^{2.35}_{2.30}$	$0.00^{0.00}_{0.00} - 29.46^{2.01}_{2.39}$	$18.20^{0.90}_{0.98} - 4.23^{1.38}_{1.50}$	$0.00^{0.00}_{0.00} - 0.58^{1.51}_{0.54}$	$75.74^{0.29}_{0.25}$
10	IRAS 17038	$0.00^{0.00}_{0.00} - 31.29^{2.25}_{2.85}$	$0.03^{0.92}_{0.03} - 31.02^{4.33}_{2.54}$	$21.65^{0.77}_{0.91} - 0.00^{0.00}_{0.00}$	$0.00^{0.00}_{0.00} - 16.00^{1.89}_{2.13}$	$81.71^{0.23}_{0.35}$
11	IRAS 17243	$0.49^{7.03}_{0.49} - 42.74^{2.73}_{2.29}$	$20.13^{10.90}_{3.29} - 14.61^{5.25}_{9.18}$	$17.34^{0.90}_{0.95} - 0.00^{0.00}_{0.00}$	$0.00^{0.00}_{0.00} - 4.69^{1.76}_{2.60}$	$83.22^{0.41}_{0.29}$
12	IRAS 19125	$8.22^{7.72}_{6.32} - 6.24^{6.47}_{4.96}$	$8.66^{8.00}_{4.28} - 45.53^{5.92}_{20.03}$	$7.98^{0.98}_{0.74} - 7.87^{1.34}_{1.22}$	$0.00^{0.00}_{0.00} - 15.50^{2.65}_{1.34}$	$69.72^{7.00}_{0.44}$
13	IRAS 19157	$0.00^{0.00}_{0.00} - 63.21^{5.31}_{3.12}$	$8.43^{4.28}_{3.41} - 12.05^{6.89}_{8.01}$	$14.58^{1.36}_{1.49} - 0.02^{0.94}_{0.02}$	$0.00^{0.00}_{0.00} - 1.70^{2.00}_{1.35}$	$82.28^{0.61}_{0.53}$
14	IRAS 20056	$0.45^{2.96}_{0.45} - 31.83^{3.62}_{3.94}$	$34.60^{2.35}_{2.66} - 0.30^{5.33}_{0.30}$	$15.86^{1.04}_{1.10} - 0.02^{0.85}_{0.02}$	$0.00^{0.00}_{0.00} - 16.93^{1.80}_{1.77}$	$83.48^{0.20}_{0.64}$
15	RU Cen	$0.00^{0.00}_{0.00} - 27.92^{2.17}_{2.49}$	$1.24^{2.06}_{1.06} - 27.81^{3.82}_{3.95}$	$28.63^{1.83}_{1.80} - 3.34^{2.71}_{2.68}$	$0.00^{0.00}_{0.00} - 11.06^{1.71}_{2.11}$	$80.62^{0.34}_{0.76}$
16	SAO 173329	$0.00^{0.00}_{0.00} - 52.55^{1.74}_{2.35}$	$0.02^{0.50}_{0.02} - 28.64^{2.15}_{2.47}$	$9.21^{1.09}_{0.77} - 0.02^{0.00}_{0.02}$	$0.00^{0.00}_{0.00} - 9.56^{2.63}_{1.85}$	$82.54^{0.44}_{0.20}$
17	ST Pup	$0.00^{0.00}_{0.00} - 32.87^{1.29}_{1.23}$	$0.71^{1.86}_{0.66} - 51.93^{1.79}_{3.17}$	$13.19^{0.57}_{0.46} - 0.03^{0.83}_{0.03}$	$0.00^{0.00}_{0.00} - 1.27^{1.16}_{0.90}$	$54.60^{0.53}_{0.37}$
18	SU Gem	$0.00^{0.00}_{0.00} - 58.69^{3.60}_{3.77}$	$0.70^{2.88}_{0.69} - 12.03^{3.93}_{5.11}$	$23.41^{2.31}_{1.75} - 2.30^{3.69}_{1.96}$	$0.00^{0.00}_{0.00} - 2.87^{3.03}_{2.11}$	$88.40^{0.44}_{0.43}$
19	SX Cen	$0.00^{0.00}_{0.00} - 48.37^{3.30}_{4.76}$	$9.19^{11.44}_{5.82} - 23.70^{12.70}_{23.67}$	$10.82^{3.64}_{1.97} - 0.53^{4.29}_{0.53}$	$0.00^{0.00}_{0.00} - 7.39^{4.69}_{3.15}$	$76.16^{1.50}_{1.16}$
20	TW Cam	$0.00^{0.00}_{0.00} - 84.42^{1.81}_{2.04}$	$0.00^{0.00}_{0.00} - 0.00^{0.00}_{0.00}$	$15.20^{1.47}_{1.73} - 0.00^{0.00}_{0.00}$	$0.00^{0.00}_{0.00} - 0.37^{1.84}_{0.37}$	$90.63^{0.15}_{0.18}$
21	UY CMa	$0.00^{0.00}_{0.00} - 15.55^{2.31}_{1.96}$	$2.54^{2.53}_{2.02} - 58.59^{3.01}_{3.68}$	$16.18^{2.50}_{1.78} - 4.48^{2.93}_{3.42}$	$0.00^{0.00}_{0.00} - 2.65^{1.53}_{1.43}$	$78.14^{0.62}_{0.42}$

Table 3. *Erratum for Table 3 in Gielen et al. (2009a)*: Best-fit parameters deduced from our full spectral fitting. Listed are the χ^2, dust, and continuum temperatures and their relative fractions. Best-fit parameters deduced from our full spectral fitting. The abundances of small and large grains of the various dust species are given as fractions of the total mass, excluding the dust responsible for the continuum emission. The last column gives the continuum flux contribution, listed as a percentage of the total integrated flux over the full wavelength range.

Name	χ^2	T_{dust1} (K)	T_{dust2} (K)	Fraction T_{dust1} - T_{dust2}	T_{cont1} (K)	T_{cont2} (K)	Fraction T_{cont1}-T_{cont2}
EP Lyr	5.4	100^{50}_{50}	200^{50}_{50}	$0.90^{0.10}_{0.05} - 0.10^{0.05}_{0.10}$	100^{50}_{50}	643^{302}_{50}	$0.98^{0.01}_{0.04} - 0.02^{0.04}_{0.01}$
HD 52961	50.0	200^{50}_{50}	700^{50}_{50}	$0.90^{0.05}_{0.05} - 0.10^{0.05}_{0.05}$	100^{50}_{50}	1000^{50}_{50}	$0.99^{0.01}_{0.01} - 0.01^{0.01}_{0.01}$

Name	Olivine Small - Large	Pyroxene Small - Large	Forsterite Small - Large	Enstatite Small - Large	Continuum
EP Lyr	$0.24^{16.83}_{0.24} - 8.74^{7.92}_{7.64}$	$7.17^{13.69}_{4.79} - 8.09^{12.67}_{7.24}$	$35.18^{3.04}_{2.78} - 2.08^{2.61}_{1.89}$	$0.00^{0.00}_{0.00} - 38.50^{4.30}_{3.46}$	$57.99^{2.53}_{3.60}$
HD 52961	$0.00^{0.00}_{0.00} - 0.00^{0.00}_{0.00}$	$59.17^{0.72}_{0.69} - 0.00^{0.00}_{0.00}$	$0.77^{1.46}_{0.69} - 40.06^{1.02}_{1.62}$	$0.00^{0.00}_{0.00} - 0.00^{0.00}_{0.00}$	$68.88^{0.42}_{0.46}$

Table 4. *Erratum for Table 4 in Gielen et al. (2009b)*: Best-fit parameters deduced from our full spectral fitting. Listed are the χ^2, dust, and continuum temperatures and their relative fractions. Best-fit parameters deduced from our full spectral fitting. The abundances of small (0.1 μm) and large (2.0 μm) grains of the various dust species are given as fractions of the total mass, excluding the dust responsible for the continuum emission. The last column gives the continuum flux contribution, listed as a percentage of the total integrated flux over the full wavelength range.

Name	χ^2	T_{dust1} (K)	T_{dust2} (K)	Fraction T_{dust1}- T_{dust2}	T_{cont1} (K)	T_{cont2} (K)	Fraction T_{cont1}-T_{cont2}
MACHO 79.5501.13	5.1	200^{50}_{50}	725^{83}_{50}	$0.90^{0.05}_{0.05} - 0.10^{0.05}_{0.05}$	346^{184}_{246}	623^{99}_{50}	$0.21^{0.69}_{0.18} - 0.79^{0.18}_{0.69}$
MACHO 82.8405.15	3.9	200^{50}_{50}	519^{82}_{75}	$0.90^{0.05}_{0.05} - 0.10^{0.05}_{0.05}$	300^{50}_{50}	500^{50}_{50}	$0.82^{0.03}_{0.02} - 0.18^{0.02}_{0.03}$

Name	Olivine Small - Large	Pyroxene Small - Large	Forsterite Small - Large	Enstatite Small - Large	Continuum
MACHO 79.5501.13	$0.00^{0.00}_{0.00} - 0.00^{0.00}_{0.00}$	$48.45^{4.75}_{7.00} - 0.37^{20.55}_{0.37}$	$0.00^{0.00}_{0.00} - 44.54^{3.47}_{3.32}$	$0.17^{2.86}_{0.17} - 6.47^{5.76}_{4.25}$	$89.27^{0.70}_{0.86}$
MACHO 82.8405.15	$0.96^{7.13}_{0.95} - 4.13^{10.91}_{3.97}$	$52.80^{10.75}_{9.36} - 4.01^{18.56}_{3.92}$	$5.50^{2.76}_{2.26} - 20.52^{6.47}_{7.06}$	$0.14^{3.66}_{0.14} - 11.95^{5.93}_{5.83}$	$82.63^{1.86}_{1.86}$